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What is claimed is:

2           1.     A purified nucleic acid present at higher levels in colon cancer cells than in non-  
3     cancerous colon cells, said purified nucleic acid comprising a nucleotide sequence that encodes a  
4     polypeptide sharing at least 80% sequence identity with SEQ ID NO:7 or with a fragment of  
5     SEQ ID NO:7 at least 20 residues in length.

1           2.     The nucleic acid of claim 1, wherein the nucleotide sequence defines a  
2     polynucleotide whose complement hybridizes under high stringency conditions to the nucleotide  
3     sequence of SEQ ID NO:6.

1           3.     The nucleic acid of claim 1, wherein the polypeptide has an amino acid sequence  
2     consisting of SEQ ID NO:7 or a fragment of SEQ ID NO:7 at least 20 residues in length.

1           4.     The nucleic acid of claim 1 comprising a fragment of the polynucleotide sequence  
2     of SEQ ID NO:6 at least 50 residues long.

1           5.     The nucleic acid of claim 4 comprising the polynucleotide sequence of SEQ ID  
2     NO:6.

1           6.     A vector comprising a purified nucleic acid present at higher levels in colon  
2 cancer cells than in non-cancerous colon cells, said purified nucleic acid comprising a nucleotide  
3 sequence that encodes a polypeptide sharing at least 80% sequence identity with SEQ ID NO:7  
4 or with a fragment of SEQ ID NO:7 at least 20 residues in length.

1           7.     The vector of claim 6, wherein said nucleic acid is operably linked to one or  
2 more expression control sequences.

1           8.     A cell comprising a vector comprising a purified nucleic acid present at higher  
2 levels in colon cancer cells than in non-cancerous colon cells, said purified nucleic acid  
3 comprising a nucleotide sequence that encodes a polypeptide sharing at least 80% sequence  
4 identity with SEQ ID NO:7 or with a fragment of SEQ ID NO:7 at least 20 residues in length

1           9.     A probe comprising an oligonucleotide and a detectable label attached to the  
2 oligonucleotide, the oligonucleotide being at least 15 nucleotides in length and hybridizing under  
3 high stringency conditions to the nucleotide sequence of SEQ ID NO:7 or a complement of the  
4 nucleotide sequence of SEQ ID NO:7.

1           10.    A kit for detecting a purified nucleic acid comprising a nucleotide sequence that  
2           encodes a polypeptide sharing at least 80% sequence identity with SEQ ID NO:7 or with a  
3           fragment of SEQ ID NO:7 at least 20 residues in length in a cell, the kit comprising:

4           a first PCR primer comprising a first nucleic acid molecule comprising the nucleotide  
5           sequence of SEQ ID NO:2 or SEQ ID NO:9, and

6           a second PCR primer comprising a second nucleic acid molecule comprising the  
7           nucleotide sequence of SEQ ID NO:3 or SEQ ID NO:10.

1           11.    A purified polypeptide expressed at higher levels by colon cancer cells than by  
2           non-cancerous colon cells, said purified polypeptide comprising an amino acid sequence that  
3           shares at least 80% sequence identity with SEQ ID NO:7 or a fragment of SEQ ID NO:7 at least  
4           20 residues in length.

1           12.    The purified polypeptide of claim 11 comprising a fragment of SEQ ID NO:7 at  
2           least 20 residues in length.

1           13.    The purified polypeptide of claim 12 comprising residues 31-111 of the amino  
2           acid sequence of SEQ ID NO:7.

1           14.    The purified polypeptide of claim 13 comprising the amino acid sequence of SEQ  
2    ID NO:7.

1           15.    A purified antibody that specifically binds to a polypeptide comprising an amino  
2    acid sequence that shares at least 80% sequence identity with SEQ ID NO:7 or a fragment of  
3    SEQ ID NO:7 at least 20 residues in length.

1           16.    The antibody of claim 15, further comprising a detectable label.

1           17.    A method of producing a CCRG polypeptide comprising the steps of:

2           (a)    providing a cell transformed with a purified nucleic acid comprising a nucleotide  
3    sequence that encodes a CCRG polypeptide sharing at least 80% sequence identity with SEQ ID  
4    NO:7;

5           (b)    culturing the cell under conditions that allow expression of the CCRG polypeptide;  
6    and

7           (c)    collecting the CCRG polypeptide from the cultured cell.

1           18.     A screening method for identifying a substance that modulates expression of a  
2     gene encoding a CCRG polypeptide sharing at least 80% sequence identity with SEQ ID NO:7,  
3     the method comprising the steps of :

4           (a) providing a test cell that includes the gene encoding a CCRG polypeptide sharing at  
5     least 80% sequence identity with SEQ ID NO:7;

6           (b) contacting the test cell with a candidate substance; and

7           (c) detecting an increase or decrease in the expression level of the gene encoding the  
8     CCRG polypeptide in the presence of the candidate substance, compared to the expression level  
9     of the gene encoding CCRG polypeptide in the absence of the candidate substance, as an  
10    indication that the candidate substance modulates the level of expression of the gene encoding  
11    the CCRG polypeptide.

1           19.    A method for isolating a substance that binds a CCRG polypeptide sharing  
2   at least 80% sequence identity with SEQ ID NO:7 comprising the steps of:

3           (a) providing a sample of the CCRG polypeptide immobilized on a substrate;

4           (b) contacting a mixture containing the CCRG polypeptide-binding substance with the  
5   immobilized CCRG polypeptide;

6           (c) separating unbound components of the mixture from bound components of the  
7   mixture; and

8           (d) recovering the CCRG polypeptide-binding substance from the immobilized CCRG  
9   polypeptide.

1           20.   A method for detecting the presence of a CCRG nucleic acid or polypeptide in a  
2   biological sample comprising the steps of:

3           (a) providing the biological sample; and

4           (b) detecting the presence of the CCRG nucleic acid or polypeptide in the biological  
5   sample.

1           21. The method of claim 20, wherein the step (b) of detecting the presence of the  
2 CCRG nucleic acid or polypeptide in a biological sample comprises:

3           contacting the biological sample with a probe that binds to the CCRG nucleic acid or  
4 polypeptide; and

5           detecting binding of the probe to the biological sample.

1           22. The method of claim 20, wherein the step (b) of detecting the presence of the  
2 CCRG nucleic acid or polypeptide in a biological sample comprises:

3           isolating RNA from the biological sample;

4           generating cDNAs from the isolated RNA;

5           contacting said cDNAs with a first PCR primer that hybridizes to a first portion of a  
6 polynucleotide sharing at least 80% sequence identity with SEQ ID NO:6 or a complement of  
7 SEQ ID NO:6, and a second PCR primer that hybridizes to a second portion of a polynucleotide  
8 sharing at least 80% sequence identity with SEQ ID NO:6 or a complement of SEQ ID NO:6 to  
9 form a mixture;

10           subjecting the mixture to reverse transcriptase-polymerase chain reaction to generate  
11 PCR amplification products; and

12           analyzing said PCR amplification products by gel electrophoresis.



1           23. The method of claim 20, wherein the biological sample is a cell derived from a  
2       colon.

1           24. The method of claim 23, wherein said colon is a human colon.

1           25. The method of claim 20, wherein the biological sample is feces or urine.

1           26. The method of claim 20, wherein the biological sample is selected from the group  
2       consisting of blood, plasma, and serum.

1           27. A method for detecting the presence of a colon cancer cell in a biological sample,  
2       the method comprising the steps of:

3           (a) providing the biological sample; and

4           (b) analyzing the biological sample for the presence of a molecule selected from the  
5       group consisting of: a nucleic acid at least 15 nucleotides in length that hybridizes under  
6       stringent conditions to the nucleic acid of SEQ ID NO:6 or the complement of SEQ ID NO:6,  
7       and a polypeptide sharing at least 80% sequence identity with SEQ ID NO:7,

8           wherein presence of the molecule in the biological sample indicates that the sample  
9       contains a colon cancer cell.

1                   28. The method of claim 27, wherein the biological sample is a colon tissue sample.

1                   29. The method of claim 27, wherein the biological sample is selected from the  
2 group consisting of: feces, urine, and, peripheral blood.

1                   30. A method for detecting the presence of a CCRG protein in a biological sample,  
2 the method comprising the steps of:  
3                   (a) providing the biological sample; and  
4                   (b) analyzing the biological sample for the presence of a polypeptide comprising an  
5 amino acid sequence that shares at least 80% sequence identity with SEQ ID NO:7 or a fragment  
6 of SEQ ID NO:7 at least 20 residues in length,  
7 wherein presence of the polypeptide in the biological sample indicates that the sample  
8 contains the CCRG protein.

1                   31. The method of claim 30, wherein the biological sample is a colon tissue sample.

1                   32. The method of claim 30, wherein the biological sample is selected from the  
group consisting of: feces, urine, and, peripheral blood.

1           33. The method of claim 30, wherein the step (b) of analyzing the biological sample  
2           for the presence of a polypeptide comprising an amino acid sequence that shares at least 80%  
3           sequence identity with SEQ ID NO:7 or a fragment of SEQ ID NO:7 at least 20 residues in  
4           length comprises contacting the biological sample with an antibody that specifically binds to a  
5           polypeptide comprising an amino acid sequence that shares at least 80% sequence identity with  
6           SEQ ID NO:7 or a fragment of SEQ ID NO:7 at least 20 residues in length.

1           34. A method for identifying a cellular receptor for a CCRG protein, the method  
2           comprising the steps of:  
3           providing a cell membrane suspected of having a cellular receptor for a CCRG protein;  
4           contacting said cell with a polypeptide comprising an amino acid sequence that shares at least  
5           80% sequence identity with SEQ ID NO:7 or a fragment of SEQ ID NO:7 at least 20 residues in length,  
6           whereby said polypeptide binds said cellular receptor to form a polypeptide-receptor complex; and  
7           isolating said complex.

1           35. The method of claim 34, further comprising the step of separating said cellular receptor  
2           from said polypeptide in said polypeptide-receptor complex.

1           36. The method of claim 35, further comprising the step of analyzing said receptor.

1                    37. The method of claim 36, wherein said step of analyzing said receptor comprises  
2 determining the amino acid sequence of said receptor.

1                    38. The method of claim 34, wherein said cell membrane is derived from a colon cancer  
2 cell.

1                    39. A method for identifying a molecule that modulates the function of a cellular  
2 receptor for a CCRG protein, the method comprising the steps of:  
3                    providing a cellular receptor for a CCRG protein;  
4                    contacting said cellular receptor with a test molecule; and  
5                    analyzing whether said contacting step results in modulation of a function of said cellular  
6 receptor.